Name _____ Period _____

Substances & Mixtures Lab

Pre-Lab Questions:

1 – How is a compound different from a Molecule?

2 – What is a mixture?

Part 1 - How do the properties of substances & mixtures compare?

Procedure: Record all data in the data table.

1 – Determine which phase (state) the Matter/ Substance is in solid, liquid, or gas (maybe more than one).
2 – Determine if each sample is a pure substance or a mixture.
3 – If the substance is pure is it a compound or a molecule. Plus if it is a compound identify any molecules that maybe present in the compound.
4 – If the substance is a mixture identify it as Homogenous or Heterogeneous.
5 – If Homogenous state what could be the solvent and the solute in the solution.
6 -- If Heterogeneous state if the solution is a colloid or a suspension.
7 -- **Below Chart / top of back page, Please sketch your prediction of what you think the configuration of the solutions' atoms look like**. (No Wrong answers, just try, think of its phase/ state)!

Data Table – Physical Properties

Sample	Phase State Of Matter	Pure Or Mixture	Molecule Or Compound	Homogenous Or Heterogeneous	Solvent: Solute:	Colloid Or Suspension
Station #1 Pure H_2O						
Station #2 Soup						
Station #3 Sand						
Station #4 Sea Water						
Station #5 Pepsi						
Station #6 Rocks/ Gravel						
Station #7 Coffee and Creamer						
Station #8 Orange Juice (No Pulp)						
Station #9 Smoke (Concentrated)						

Predictions:

Station #1

Station #2

Station #3

Station #4

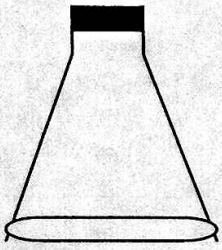
Station #5

Station #6

Station #7

Station #8

Station #9



Part 2 – How can mixtures be separated

1 – Explain how you would separate a saltwater mixture.

2 – Explain how you would separate the orange juice mixture.

Conclusion:

1 – How can you identify a pure substance from a mixture?

2 – How can you identify a Homogenous mixture from a heterogeneous mixture?

3 – I did not have you calculate the Density of any of your samples. Briefly explain how or what materials you would have needed for me to provide for you to complete this task for the following samples:

Station #6:

Station #4: (Hard Question)